

B1
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Acad. Sci. USA 95:1160; Szomolanyi-Tsuda, E. and Welsh, R. M. (1996) *J. Exp. Med.* 183:403; and Szomolanyi-Tsuda et al. (1998) *J. Virol.* 72:6665). When T cell deficient mice (T cell receptor β chain knockout [TCR β -/-] or T cell receptor α chain knockout [TCR α -/-] were infected with live polyoma viruses, a protective, virus-specific IgG response was reported in the absence of helper T cells. However, virus-like particles and soluble capsid antigens (VP1) were reported not to induce detectable IgG responses. In studies with VSV, TCR α -/- mice were found to produce neutralizing IgG antibodies when infected with live VSV or with a recombinant vaccinia virus expressing the VSV glycoprotein (Maloy et al. (1998) *supra*). These results suggest that there may be alternative mechanisms for antibody class switching and induction of IgG responses.

Please replace the third paragraph on page 6, lines 17-25 with the following.

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FIG 1: Magnitude and isotype profiles of serum antibody responses to intramuscular immunization with inactivated PR8 virus in CD4⁺ T cell deficient and immunocompetent mice. 16 week old CD4⁺ T cell deficient mice or C57B/6 mice were immunized intramuscularly with 10 μ g/mouse of inactivated PR8 virus, mice were boosted with the same dose after 15 days. Con: Control, unimmunized CD4⁺ T cell deficient mice (n = 5). CD4KO: CD4⁺ T cell deficient mice received inactivated PR8 virus (n = 5). C57B/6: C57B/6 immunocompetent mice received inactivated PR8 virus (n = 5). First: Samples were measured 15 days after first immunization. Boost: Samples were measured 10 days after boost. Serum samples were assayed in 1:400 and 1:1600 dilutions. One experiment representative of two with comparable results is shown.

In the Claims:

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21. (Once amended) An immunogenic composition useful for providing immune protection in a human or animal deficient in CD4⁺ T cells, comprising a sialic acid binding component and an inactivated or attenuated target cell or virus.
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